



PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Pa	
PO039882	MEC002-VU	1	1	Net 30	M7075T6S1.000X8.000	7075-T6 Sheet 1.000" X 8.000" MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft					24	6/15/2018	24		S081264	Stock	6/14/2018	\$ 56.42 / ft	0	
						Total:				24		24								

Plex 6/14/2018 12:48 PM Dart.Dubois.Pascal

INTERORG TRANSFER  
PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Ship From:		Sold To:		Ship To:		Deliver To:	
A. M. CASTLE & CO. 4175 ROYAL DRIVE SUITE 600 KENNESAW, GA 30144 USA		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms	Carrier		BOL No		
04-JUN-18	ORIGIN	Prepaid	ARCBEST		3612565-2		
Shipment Details				Final Destination Branch - TOR			
Order No	Line No	Item No	Description	Order Ref. No	Part Number	Order Ref. City	Invoice Qty
5138665	1	752188.MO	1.0000.PL.7075.T651.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 8 IN (+ .1250/- .0000 IN) X 144.5 IN (+ .1250/- .0000 IN) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12	39892		2.00 PCS	2.00 PCS
Details	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS						
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
121857843	CONSTELLUM ROLLED PRODUCTS		2				240.7515

These items are controlled by the U.S. Government and authorized for export only to the country or ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description for credit. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A. M. Castle & Co., within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned.

Reviewed by Authorized Castle Metals Representative: \_\_\_\_\_ Date: \_\_\_\_\_ Name: \_\_\_\_\_

Date Printed: 04-JUN-2018 01:19:28 PM



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER PO039892

E-MAILED  
MAY 14 2018

<b>Supplier:</b>	MEC002-VU Metaux Castle P.O. Box 4090 Stn A Toronto ON M5W 0E9 Canada	<b>PO No:</b>	PO039892
		<b>PO Date:</b>	5/14/18
		<b>Due Date:</b>	6/4/18
		<b>Purchase Order Revision:</b>	
		<b>Revision Date:</b>	
		<b>Ship-To Contact:</b>	Lavoie, Chantal Phone: clavoie@dartaero.com
<b>Ship To:</b>	1270 Aberdeen Street Hawkesbury ON K6A 1K7 Canada Phone: 613-632-5200	<b>Via:</b>	Ground
		<b>Pymt Terms:</b>	Net 30
		<b>Freight Terms:</b>	
		<b>Special Comments:</b>	

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	M7075T6S1.000X8.000		7075-T6 Sheet 1.000" X 8.000" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	6/4/18	24 ft	0 ft	24 ft	\$56.42/ft	\$1,354.08
Grand Total: \$1,354.08										

## Order Notes

- Procurement Quality Clauses
- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system
- A042 dart notification by supplier
- A043 retention of quality documents
- A048 counterfeit parts avoidance, detection, mitigation and disposition program
- A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

DAS  
11  
9-89

Plex 5/14/18 1:36 PM dart.lavoie.chantal

## Chantal Lavoie

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**From:** Desbiens, Marc <[mdesbien@amcastle.com](mailto:mdesbien@amcastle.com)>  
**Sent:** Monday, May 14, 2018 11:01 AM  
**To:** Chantal Lavoie  
**Subject:** RE: quote

Hi Chantal,

plate \$ 56.42 Ft 2-3 weeks

Thanks

Marc Desbiens  
Inside sales representative  
Castle Metals, Montreal, QC  
Direct line 514-795-8176  
1-800-806-6660 ext 52226  
Fax # 1-855-892-6370

*Customized Supply Chain Solutions for Your Metal Needs*

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**From:** Chantal Lavoie [mailto:[clavoie@dartaero.com](mailto:clavoie@dartaero.com)]  
**Sent:** Monday, May 14, 2018 8:31 AM  
**To:** Desbiens, Marc  
**Subject:** quote

Good morning Marc,  
Please advise price and delivery on mat'l.  
7075-t6 bar or plate 1" x 8" x 24 ft

Thanks  
Chantal

**Chantal Lavoie**  
*Purchasing Coordinator*

DART AEROSPACE  
T 1 613 632-5200  
F 1 613 632-1053  
E [clavoie@dartaero.com](mailto:clavoie@dartaero.com)  
1 800 556- 4166  
[www.dartaerospace.com](http://www.dartaerospace.com)



## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M702576 \$1.000x8.000

PO / BATCH NO.: 039892/5081264

DATE: JUN 14 2018

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 241  
 QUANTITY INSPECTED: 241  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000  
 THICKNESS RECEIVED: 1.000  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	AMS 4045
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	Hart # 9392368
CORRECT MATERIAL IDENTIFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____
DATE: <u>11 JUN 14 2018</u> <u>9-89</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

**A** PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12  
OR AMS 4045  
OR ASTM B209

OR

**B** PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13  
OR AMS 4048 / 4049  
OR ASTM B209

**C** PART NUMBER:

M7075T6S|TTT|X|WWW|

|THK| |WIDTH|

WHERE: "TTT" = THICKNESS (IN INCHES)  
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M7075T6S.063

EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500x3.500

**D** PREFERRED SIZE:

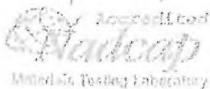
.TTT BY 4FT BY 10FT FOR SHEET

**RELEASED**

2017 JUN 19 q/  
ECN 17-574

<b>B</b>		ADD REF TO PLATE* T651* TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CAR16-149)		CP	17.05.05
<b>A</b>		NEW ISSUE		RF	10.11.08
REV.		DESCRIPTION		BY	DATE
DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		A	
DRAWN	CP	DRAWING NO.	M7075T6S		REV. B
CHECKED	ML	LL	SHEET 1 OF 1		
MFG. APPR.	LL	WM	TITLE	SCALE	
APPROVED	WM	DS	NTS		
DE APPR.	DS		7075-T6 SHEET/PLATE SPEC		
DATE	17.05.05		N/A		

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NOT TO BE USED OR COPIED OR REPRODUCED BY ANY OTHER THAN THE  
PARTIES IDENTIFIED ON THIS DRAWING. DART AEROSPACE LTD. IS  
WHITFIELD SYSTEMS, INC., DART AEROSPACE LTD.



**CERTIFIED TEST REPORT**  
Constellium Rolled Products  
Ravenswood, LLC

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H  
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P  
T  
O

A M CASTLE & COMPANY  
4175 ROYAL DRIVE  
KENNESAW GA  
30144  
US

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D  
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O

A M CASTLE  
1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE		110550666	4075	INCLUSION	Serial:20170703-0110550666	Pg 1 of 3
CUSTOMER PURCHASE ORDER NO. & ITEM 426116			Constellium ORDER NO. 200343		CERTIFICATION	
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.00000 in 25.40 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH						
CUSTOMER SPECIFICATION AMS 4045K						Steve Good - Laboratory Manager
PART NUMBER 752188	B/L NUMBER 83324		DATE SHIPPED 07/03/2017			
WT. SHIPPED 4320.000 LB	NO. OF PIECES 000006	GOVT. CONTRACT NO.				

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM B594 REV 13 2013 100% SONIC W/ 0.125" DEADZONE Class A  
AMS QQ-A-250/12A  
AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE  
ASTM B209-14  
BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE  
CSTI006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE  
DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE  
GAMPS 9101 REV B 2008 CLASS A 100% SONIC MINUS DEADZONE  
PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

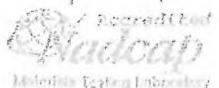
Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001556284	720.000	326.586	9392367	01		
1001556284	720.000	326.586	9392367	02		
1001556284	720.000	326.586	9392367	03		
1001556285	720.000	326.586	9392368	01		
1001556285	720.000	326.586	9392368	02		
1001556285	720.000	326.586	9392368	03		

Lot: 9392367

Tensile - Room Temperature (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	82.6	82.9	73.7	73.9	12.5	13.0	



**CERTIFIED TEST REPORT**  
Constellium Rolled Products  
Ravenswood, LLC

SHIP TO

A M CASTLE & COMPANY  
4175 ROYAL DRIVE  
KENNESAW GA  
30144  
US

SOLD TO

A M CASTLE  
1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE	110550666	4075	INCLUSION	Serial:20170703-0110550666 Pg 3 of 3
CUSTOMER PURCHASE ORDER NO. & ITEM 426116			Constellium ORDER NO. 209343	<b>CERTIFICATION</b> "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.00000 in 25.40 mm	WIDTH 48.50000 in 1,232 mm
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH			LENGTH 144.50000 in 3,670 mm	
CUSTOMER SPECIFICATION AMS 4045K				
PART NUMBER 752188	B/L NUMBER 83324	DATE SHIPPED 07/03/2017		
WT. SHIPPED 4320.000 LB	NO. OF PIECES 000006	GOVT. CONTRACT NO.		Steve Good Steve Good - Laboratory Manager

## Tensile - Room Temperature (SI)

Direction	Tests	Ultimate (N/mm <sup>2</sup> )		Yield (N/mm <sup>2</sup> )		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	O2	565	573	497	507	13.0	14.5	

## Chemistry (Actual)

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr
Core	0.05	0.12	1.48	0.03	2.62	0.22	5.66	0.03	0.00

OTHERS-EACH: .05 MAX, OTHERS TOTAL: .15 MAX, AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

QUALITY TEXTS:  
AMC CA-15403 R 8

THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CHEMISTRY BY OES: ARKSPARK

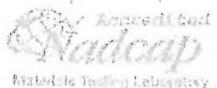
CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT  
WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399

WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557

DUNS Number: 090570149; CAGE Code: 1YWL9

Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.

"END OF CERTIFICATION"



**CERTIFIED TEST REPORT**  
Constellium Rolled Products  
Ravenswood, LLC

SHIP TO

A M CASTLE & COMPANY  
4175 ROYAL DRIVE  
KENNESAW GA  
30144  
US

SOLD TO

A M CASTLE  
1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE	110550666	4075	INCLUSION	Serial:20170703-0110550666	Pg 2 of 3		
CUSTOMER PURCHASE ORDER NO. & ITEM 426116			Constellium ORDER NO. 209343	CERTIFICATION			
ALLOY 7075 <i>al</i>	CLAD	TEMPER T661 <i>al</i>	GAUGE 1.00000 in 25.40 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm <i>al al</i>		
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH				"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."			
CUSTOMER SPECIFICATION AMS 4045K <i>al</i>				Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA			
PART NUMBER 752188	B/L NUMBER 83324		DATE SHIPPED 07/03/2017				
WT. SHIPPED 4320.000 LB	NO. OF PIECES 000006	GOVT. CONTRACT NO.					

Steve Good - Laboratory Manager

## Tensile - Room Temperature (SI)

Direction	Tests	Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	570	572	508	510	12.5	13.0	

## Chemistry (Actual)

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.05	0.12	1.48	0.03	2.62	0.22	5.56	0.03	0.00

OTHERS-EACH: .05 MAX, OTHERS TOTAL: .15 MAX, AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

Lot: 9392368 *al*

## Tensile - Room Temperature (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	81.9	83.1	72.1	73.0	13.0	14.5	